

ORGANIZATIONAL CULTURE AND ITS IMPACT ON ORGANIZATIONAL PERFORMANCE; MEDIATING EFFECT OF ORGANIZATIONAL COMMITMENT: A MULTI-GROUP ANALYSIS EVIDENCE FROM DEVELOPING COUNTRIES

Salah Hasin Ghumiem

University of Geomatika, Malaysia

Nahg Abdulmajid Alawi

University of Geomatika, Malaysia

Abstract

The goal of this study is to determine the direct effects of organizational culture on organizational commitment and performance, as well as its indirect effects on organizational performance via the mediating effect of organizational commitment in the electricity sector. In this study, a quantitative approach was used to achieve the intended objectives. The data used in this work was collected from 408 responses and the analysis was done in two steps: Confirmatory Factor Analysis (CFA) for the assessment of the measurement model, as well as structural equation modelling (SEM) for the hypothesis testing. This study revealed that organizational culture has a direct positive and significant effect on organizational commitment and performance and while organizational culture has a significant indirect effect on organizational performance through organizational commitment. This study includes discussion, limitations, and some recommendations for future research.

Keywords: *Organizational culture, Organizational performance, Organizational commitment, Electricity sector.*

1. Introduction

Productive and service organizations in developing countries operate in a constantly changing environment, which makes the organization's ability to predict future changes extremely difficult. As a result of these issues and difficulties, organizations spend a lot of time and money in an unstable environment to reach high organizational performance to achieve their goals. However, due to continuous environmental change, public organizations in developing countries suffer from low organizational performance. The reason for this is due to the cultural, social, economic, and political transformations that are considered an obstacle to achieving fast growth, continuum improvement in their process, increased profitability, and preparation for the future of the public sector in achieving development goals (Aboajela, 2015; Nikpour, 2017). Some of these reasons have been identified and analysed in previous studies to reach the logical reasons that prevent organizations in the public sector in developing countries from performing their role correctly (Aboajela,

2015).

Organizational culture is identified as one of the essential organizations' intangible resources that is difficult to be copied or imitated by competitors and has substantial implications for organizational performance (Joseph & Kibera, 2019). Scholars proposed that the basic functions of organizational culture include adaptation to external environment changes, as well as facilitation of internal integration (Schein, 2016). Therefore, analysing organizational culture can help us better understand organizational performance because organisations respond to new situations in the external or internal environment based on their existing culture (Colyer, 2000; Joseph & Kibera, 2019).

While reviewing the literature on organizational culture and performance nexus, much attention has been paid to culture and employees' performance, and it has been confirmed that organizational culture positively and significantly affects employees' performance (Giri et al., 2016; Kuswati 2020; Fidyah, & Setiawati, 2020; Febrina, Astuti, & Triatmanto, 2021; Sopiha, Kamaludin, Sangadji, & Narmaditya, 2021). Other studies found an insignificant effect of this relationship (Pawirosumarto, Setyadi, & Khumaedi, 2017; Sapta, Muafi, & Setini, 2021). While least attention has been paid to the organizational culture-organizational performance nexus, nevertheless, it has been verified by previous studies that organizational culture positively and significantly affects organizational performance (Goromonzi, 2016; Leithy, 2017; Nikpour, 2017; Nuryanto, Mz, Sutawidjaya, & Saluy, 2020; Imran et al., 2021; Nungchim, & Leihaothabam, 2022). However, the empirical findings of previous studies seem to be mixed and inconclusive because some studies found an insignificant effect of organizational culture on organizational performance (Yesil, & Kaya, 2013; Mousavi, Hosseni, & Hassanpour, 2015). The reason is that the differences in the effect of organizational culture and organizational performance seem to be based on the performance metrics used, as well as on the type of organizations (Lim, 1995) and the culture of each country (Zumrah, Bahaj, & Alrefai, 2021). Consequently, more studies are needed to focus on the effect of organizational culture (OC) on organizational performance (OP).

However, organizational culture represents the set of values, beliefs and principles followed and shared by the organization members, which contribute to achieving organizational goals (Ahmady, Nikooravesh, & Mehrpour, 2016; Nikpour, 2017; Yusuf, 2020). Therefore, organizational culture can affect employees' beliefs and identification with and involvement in their organization, which is identified as organizational commitment (Meyer & Allen, 1997; Giri et al, 2016; Yusuf, 2020; Zumrah, Bahaj& Alrefai, 2021), and can affect organizational performance (Alsamawi, Darun, & Panigrahi, 2019). Thus, organizational culture affects organizational performance through commitment (Nikpour, 2017). Therefore, the least attention has been paid to the mediating role of organizational commitment in the organizational culture-performance relationship; investigating this relationship improves our understanding of the effect of organizational culture on employees' attitude and behaviour and organizational performance. Hence, the current study aims to investigate the mediating role of OC in the relationship between organizational culture and organizational performance in the electricity sector.

The Literature Review

Organizational culture

According to Luthans et al (2021), organizational culture is described as the collection of principles and values that determine how the individuals of an organisation behave. To gain acceptance by the people in the

organization, each member will operate in obedience to the common culture. Kawiana (2018) defined organizational culture as a collection of assumptions and beliefs, norms, and values, designed inside organizations that members may use as behavioural guidance to respond to external adaptation and integration with internal issues. As per Hofstede (2016), culture is “mind collective programming that separates one group member or people type from another.” The brain, heart, hands, or thinking, feeling, and acting are all aspects of the mind and have a consequence on attitudes, beliefs, and abilities. The culture is defined by organizational values, and the values system is the heart of the culture. The whole notion, including symbols, heroes, and rituals, will be integrated into the values.

However, organizational culture has different dimensions; Denison (1990) integrated a model of organizational culture that distinguished between four dimensions: (a) inclusion, (b) consistency, (c) flexibility, and (d) mission. These four components are necessary for creating and maintaining a healthy organizational culture in the corporation (Kotrba et al., 2012). Denison showed inclusion and consistency as interior and essential components in building up a compelling corporate culture.

Denison (1990) noted that inclusion is an internal factor used in developing an essential organizational culture, representing shared responsibility and ownership throughout the organization (Khan et al., 2020). The goal of this dimension is to make employees feel that they are part of the management and have a fair share in the decision-making process, in addition to their feeling that they are aware and that they participate in the work they perform in the organization, which in turn contributes to improving their performance (Khan et al., 2020).

Consistency is the primary source of control integration and coordination in organizations. It noted that consistency supports organizations to develop their procedures to be able to create an internal governance system based on the support that is agreed upon by all the organization members, which enhances the organization's performance and brings compatibility and harmony (Twumasi-Ankrah, 2012). Consistency has a substantial impact on the organization's job performance, and productivity, and helps find a common path for the full use of resources in the same cultural link, contributing to its positive development and improving its performance (Awadh and Alyahya, 2013).

Flexibility or adaptability, according to the context of Schein's theory of organizational culture, represents the management's ability in identifying and responding quickly to external environments (Schein, 2016). In a compelling organizational culture, chiefs are enthusiastic and receptive to inner and outer variables. In the adaptability (Flexibility) variable, business managers can adjust the current organizational culture to accommodate fundamental changes. The change could be an improvement of internal components, upgrading internal items and departments in light of outer rivalries (Mousavi et al., 2015).

Mission is characterized as the explanation behind the association's presence, the long-term aim or course of the association, and employees' comprehension of the management's strategic planning (Khan et al., 2020). The employees should believe that their day-to-day work will help the company achieve its short- and long-term objectives. Furthermore, Khan et al. (2020) emphasised that the mission should place a premium on the tactics that the firm must use and adhere to in order to increase both financial and non-financial performance.

Organizational Performance

There is no generally accepted definition of performance as there are many ways to describe it. Organizations can assess their efficiency and effectiveness, but the essential goals are to improve

organizational performance, set expectations, and figure out techniques to improve performance significantly (Ismail & Al Hosni, 2021). Academics' interest in organizational effectiveness and evaluation has remained strong in recent years because of organizations' wide range of objectives (Lu, 2019). However, performance may be described as "acting," "actually achieving an activity," or "completing a task," in the sense of dealing with an action that helps achieve the essential objectives (Miller and Bromiley, 1990). To be considered a success, an organization's performance must be understood and communicated to all parties involved in achieving the organization's mission (Akpoviro & Owotutu, 2018).

Therefore, when top management wants to evaluate an organization's overall position and goals, they use organisational performance to make their decision (Balabonien and Veerskie, 2015). According to Eneizan et al. (2016), financial and non-financial performance is considered when determining organizational efficiency. Venkatraman and Ramanujam (1986) developed three indicators to evaluate organizational performance; they include effectiveness, efficiency, and operational performance. It is about not only efficiency and effectiveness in an organization's performance, but also feedback, connections with stakeholders, and discipline (Ismail & Al Hosni, 2021). Organizational performance is evaluated using non-financial metrics; in the current study, the non-financial performance consisted of three subjective dimensions which are innovation, customer satisfaction, and effectiveness.

Organizational Commitment

From the organizational behaviour perspective, organizational commitment is extensively studied as a tool for improving organizational performance (Allen & Meyer, 1990). An individual's willingness to change his attitudes and behaviours can be described as evidence of the extent of his commitment to the organization in which he works (Meyer et al., 2002). It refers to how the individual contributes and relates to the organization's identity. It may be due to their psychological attachment or their desire to remain an active member of the organization. Organizational commitment is a term used to describe a member's desire to help the organization achieve its goals (Ha, & Lee, 2022). It is common for members with high levels of organizational commitment to work tirelessly to achieve organizational goals and put all their effort into them. In that, it may lead to the achievement of high organizational goals (Mowday, Porter, & Steers, 1982). It has been reported that organizational commitment is affected by job characteristics, leadership, and organizational culture, and positively affects organizational performance as job satisfaction (O'Reilly & Chatman, 1986; Meyer et al. (2002). Moreover, a high level of organizational commitment of members increases the organization's productivity, which leads to positive effects on the individual, the organization, and society (Blau, 1986; Ha, & Lee, 2022).

Meyer and Allen (1991) created an organisational commitment model with three components that are still widely used in research today (Chevalier et al., 2019; Zumrah, Bahaj & Alrefai, 2021); the three components are affective commitment, normative commitment, and continuance commitment. Emotional connection, identification with, and participation in the organisation are all terms used to describe the concept of "affective commitment." People that emotionally invested in the company stay because they want to be there. Employees that emotionally invested in the company are more likely to stick around (Meyer & Allen, 1991). The term "continuance commitment" refers to an employee's desire to stay with the company because of the expenses

involved with quitting. In other words, employees whose primary connection to the company is one of continued devotion are those who must stay. The third sub-category of this is the personal cost that comes with quitting or a lack of options for work elsewhere. Normative commitment refers to a sense of responsibility to continue working for an organisation based on societal standards about how dedicated one should be to the company. Employees that have a strong sense of normative commitment believe they should stay with the company (Meyer and Allen, 1991).

Organizational culture and organizational performance

Rapid changes in the environment directly influence organizational structures, making it increasingly challenging to master organizational difficulties (Behmer et al., 2016; Polychroniou & Trivellas, 2018). Organizations operating in changing environments strive to improve their level of performance, and organizational culture is recognized as a critical factor in achieving better organizational performance and effectiveness (Martinez et al., 2015; Imran et al., 2021; Ismail et al., 2021; Rahmatullah et al., 2022). According to several previous studies, successful businesses have strong cultures described in several ways, and organizations with strong cultures outperform those organizations with weak cultures (Demir, 2011; Aboajela, 2015; Giri et al., 2016; Polychroniou & Trivellas, 2018; Jamali et al., 2022).

Previous empirical studies have confirmed that organizational culture has a positive impact on organizational performance; for instance, Goromonzi (2016) found a significant positive effect of organizational culture on bank performance in Zimbabwe. Nikpour (2017) noted that adopting an appropriate culture by an organization significantly and positively affects its performance in the context of the education sector in Iran. Polychroniou and Trivellas (2018) found a strong influence of organizational culture on internal performance (human relations and innovation competence), and a strong positive influence on organizational outcomes (growth, profitability, and reputable assets). In the Kenyan microfinance industry, Joseph & Kibera (2019) revealed that, besides the positive effect of organizational culture on organizational performance, it is considered a significant source that provides an organization sustainable competitive advantage. However, based on the previous discussion, this study hypothesized as follows:

H1. Organizational culture has a direct effect on organizational performance

Organizational culture (OC) and organizational Commitment

Another widely explored and reported issue is the relationship between OC and organizational commitment. Organizational commitment is the psychological attachment an individual has with the organization in which he works. Peters and Waterman (2006) provided the theoretical elaboration of the relationship between OC and organizational commitment by claiming that OC has an impact on a wide range of organizational and human outcomes, such as individual commitment, productivity, organizational performance (Jigjiddorj et al, 2021).

Organizational commitment is determined to be linked actively to organizational culture. Culture is demonstrated in how organization members adhere to the organization's rules. If an organization is well organized, with a leader who takes their power and responsibilities, its members will be loyal to it (Lim, 2010; Jigjiddorj et al, 2021). Organizational culture plays an essential role in directing individuals' behaviour and collective efforts toward achieving the organization's performance (Joseph & Kibera, 2019). According to

another research, organizational culture, which includes trust, effective communication, and innovative culture, has a beneficial impact on organizational commitment (Muliaty, Basri & Jasruddin, 2017). Based on the previous discussion, this study hypothesized as follows:

H2. Organizational culture has a direct effect on organizational commitment

Organizational Commitment and Organizational Performance

Commitment to a respected organization may help employees perform better at work (Khan et al., 2020), otherwise, un-commitment employees will be unwilling to exert more effort to benefit their respected organization (Al-refaei et al., 2019) and such organizations may not be able to achieve their goals and objectives (Zumrah et al. 2021). According to Ha and Lee (2022), organizational commitment is a term used to describe a member's desire to help the organization achieve its goals (Ha, & Lee, 2022). Employees may be motivated to work more if they have strong confidence in the organization's values and objectives, a willingness to put in much effort on behalf of the organization, and a strong desire to stay a part of the organization (Azeem, 2010; Suharto, Suyanto, & Hendri, 2019).

Organizational commitment is shown to have a direct impact on organizational performance in several studies, including Nikpour (2017) who found that, employees' commitment to their organization significantly and positively affects performance in the context of the education sector in Iran. Suharto, Suyanto, & Hendri, (2019) found that, when employees have strong trust, beliefs, and acceptance of values formulated by their organization, they are willing to exert more effort to benefit their respected organization, thereby improving organizational performance. In addition, other studies have found positive effects of organizational commitment on organizational performance (Giri et al., 2016; Kawiana et al., 2018; Oyewobi et al., 2019; Jufrizen, 2021). Based on these findings, this study hypothesized as follows:

H3. Organizational commitment has a direct effect on organizational performance

Mediation Role of Organizational Commitment

The previous discussion revealed a positive relationship between OC and organizational performance (Goromonzi, 2016; Nikpour, 2017; Polychroniou & Trivellas, 2018; Joseph & Kibera, 2019; Imran et al., 2021; Ismail et al., 2021; Rahmatullah et al., 2022; Jamali et al., 2022). Organizational culture has also been found to have a positive relationship with organizational commitment (Peters and Waterman, 2006; Lim, 2010; Muliaty, Basri & Jasruddin, 2017; Joseph & Kibera, 2019; Jigjiddorj et al, 2021). Furthermore, organizational commitment has a positive relationship with organizational performance (Giri et al. 2016; Nikpour, 2017; Kawiana et al. 2018; Al-refaei et al., 2019; Ha and Lee, 2022). These three scenarios fulfill the necessary conditions to establish a mediating effect (Baron & Kenny, 1986; Kenny et al., 1998), and based on these findings, it is hypothesized in this study that:

H4. Organizational commitment mediates the relationship between organizational culture and organizational performance

Multi-Group Influences

Organizational behaviour dimensions, such as organizational commitment, are influenced by employees' demographic characteristics. For example, cultural background (Al-Meer, 1989), organisational and position tenure (Mathieu & Zajac, 1990), and work position (McCaul, Hinsz, & McCaul, 1995; Yiing, & Ahmad, 2009),

all have been linked to organisational commitment. Furthermore, the type of job has different influences on the organizational commitment-organizational performance relationship (Al-refaei et al, 2019). In this study, there are two groups of employees - managers and technicians; therefore, the current study investigates the multi-group differences in the effect of organizational culture on organizational commitment and performance. Based on the previous discussions, this study hypothesized as follows:

H5. Organizational culture has different effects on organizational commitment based on the employee's job type.

H6. Organizational culture has different effects on organizational performance based on the employee's job type.

H7. Organizational commitment has different effects on organizational performance based on the employee's job type.

Conceptual Framework of the Study

Figure 1 shows the conceptual framework for this study; the framework connected the considered variables in this study (organisational commitment, organizational culture, & organizational performance) based on the proposed hypotheses (see H1 to H4). The framework assumes that organizational culture could influence organizational commitment and performance. The framework further assumes a direct influence of organizational commitment on organizational performance. Lastly, a mediating role of organizational commitment in the relationship between OC and organizational performance was also assumed.

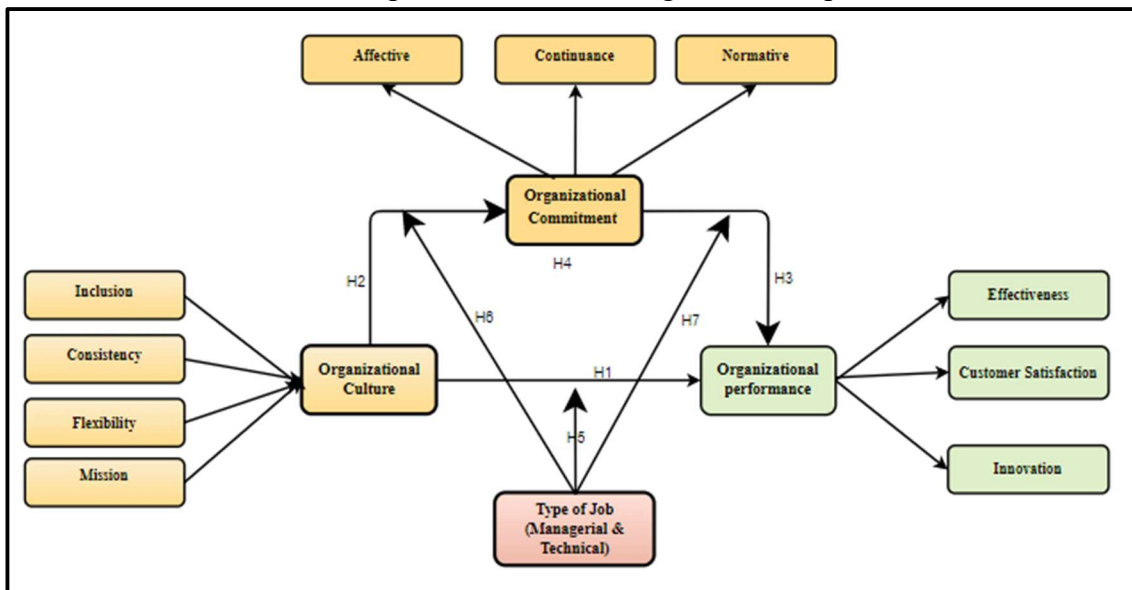


Figure1. Conceptual Framework of the Study

Research methods

Sample and data collection

A sampling frame criterion was adopted to select the sample from the population, where the staff working in the General Electric Company of Libya were included in the study sample. All the included participants are

assured of having at least three years of experience and aged at least 26 years old; this is to ensure the validity and reliability of the obtained data. The sample size of this study was 408 participants ($n = 408$) selected from the staff, managers, technicians, administrative managers, heads of departments, and other professionals working in the selected GECOL in Libya. Random sampling was used to select the cases that required answering the research questions (Sarstedt & Mooi, 2019). Simple random sampling was used in this study because it allowed the researcher to select the sample without any bias, and the sample selected by this technique can be representative of the target population. It is the best and most appropriate sampling technique in cases where there is an accurate target population and each case is easily accessible (Saunders et al (2019). The questionnaire was administered during participants' working hours and provided with a covering letter clarifying the study's purpose, the aim of the research, and the data's security to encourage a high response.

Measures

Organizational culture in this study was measured by 28 items as developed by Daniel Denison (1990). The scale was divided into four dimensions (inclusion, consistency, flexibility, and mission); each dimension was measured by seven items. This measurement was chosen because it has been used by previous studies that investigated the influence of organizational culture on organizational performance, it has a robust research base, and its reliability and validity have been confirmed (Mousavi et al., 2015; Darmanto, 2015).

Organizational commitment was measured by 9 items by adopting the standard questionnaire of organizational commitment developed by Meyer and Allen (1997), i.e., Meyer and Allen's three-dimensional model (affective, continuance, and normative). This questionnaire was chosen because it is more applicable to various levels of the organization, suitable for all organizations from all environments, and has been proven reliable and valid due to the reliance on many organizational and management studies (Macedo et al., 2016; Dinc, 2017; Imamoglu et al., 2019).

Organizational performance: non-financial organizational performance was considered in this study. The major concern was how to select the best performance metrics that suit well with governmental organizations (Palmer & Randall, 2002). This means that within government establishments, such as GECOL, performance must not be defined solely in financial terms (Phills, 2005) as the non-financial aspects of performance are more important and impactful. Therefore, non-financial performance in this study was measured by 13 items adopted from Nikpour (2017). The measurement consisted of three subjective dimensions: innovation, customer satisfaction, and effectiveness. GECOL's employees and managers responded to the questionnaire based on a 5-point Likert-type scale that reflects the levels of their agreement with the statements (1= strongly disagree, to 5= strongly agree)

Data Analysis

The measurement model in this study was assessed by Confirmatory Factor Analysis (CFA) using AMOA. Assessment of the measurement model was done in two steps- the assessment of goodness-of-fit, and the assessment of construct validity which includes testing convergent and divergent validity. The structural model is the second stage that involves the assessment of the significant level of the relationship between the

variables as determined by the critical ratio value (value must be >1.960 as suggested by Byrne, 2016). The last step is the mediating role assessment using Bootstrapping.

Result

Demographic and Profile of the Respondents

Table 4.2 showed the demographic and profile of the respondents; a total of 408 employees made up the sample size in this study. In terms of age, 16.2 percent (N= 66) of the participants were between 21-30 years old, 32.1 percent (N=131) were between 31-35 years old, 29.9 percent (N= 122) were between 36-40 years old, and 21.8 percent (N=89) were above 40 years old. Regarding the education qualification, 12.7 percent of the participants (N= 52) hold a diploma, 81.9 percent (N= 334) of them hold a bachelor’s degree, 2.9 percent (N=12) of them hold a master’s degree, and 2.5 percent (N=10) of them hold others. In terms of job, 50 percent of the participants (N=204) have managerial jobs (e.g. managers, head direction, head of department), and 50 percent (N=204) of them were technicians. Regarding working experience, 26.5 percent of the participants (N= 108) have been in the GECOL for less than 6 years, and 73.5 percent (N= 300) of them have been in the GECOL for more than 6 years.

Table 1. Demographic and Profile of the Respondents

Characteristics	Category	Frequency	Percent (%)
Age	From 21 to 30	66	16.2
	From 31 to 35	131	32.1
	From 36 to 40	122	29.9
	More than 40	89	21.8
Qualification	Diploma	52	12.7
	Bachelor’s degree	334	81.9
	Master’s degree	12	2.9
	Others	10	2.5
Job	Managerial	204	50
	Technician	204	50
working experience	Less than 6 years	108	26.5
	More than 6 years	300	73.5

The measurement model was constructed using three latent variables (organizational culture, organisational commitment, and organizational performance) and 46 observed variables. All the items presented factor loading estimates that were higher than the cut-off threshold, ranging from 0.58 to 0.92 for OC, 0.82 to 0.92 for organizational performance, and 0.84 to 0.96 for organizational commitment as seen in Table 2. For the measurement, the CFA yielded an adequate model fit, with a χ^2 statistic of 1956.783, df = 976 (CMINDF = 2.00, p 0.000), CFI = 0.943, TLI = 0.94, & RMSEA = 0.050. The values of these metrics indicated an acceptable level of model fitness (Hair et al. 2019) and were sufficient to assess the model's fitness (Kline, 2016).

Concerning the model reliability and validity, composite reliability (CR) was used to measure all the

constructs' reliability. In contrast, factor loadings for all the items, construct average variance extracted (AVE), and Maximum Shared Variance (MSV), which should be less than ASV, were used to measure convergent validity. Table 2 presents the results of the convergent reliability and convergent validity.

The results indicated that factor loadings for all items were between 0.58 and 0,096. The CR of each construct had satisfactory values; CR was 0.86 for organizational culture, 0.78 for commitment, and 0.77 for performance, which was above the cut-off value of 0.70 as suggested by Hair et al. (2019). The AVE value for each construct was between 0.054 and 0.61, which was more than 0.50 and below the value of CR as suggested by Hair et al. (2019). Furthermore, all the variables' maximum-shared variance (MSV) was between 0.243 and 0.270. These values, on the other hand, were lower than the value of AVE; therefore, the current measurement model's convergent validity was established.

Table (2) Reliability, factor loadings of indicators, and validity of the constructs.

Construct and Indicators	Loading	CR	AVE	MSV
<u>Organizational Culture</u>				
CH1	0.772			
CH2	0.765			
CH3	0.789			
CH4	0.857			
CH5	0.886	0.86	0.61	0.270
CH6	0.816			
CI1	0.665			
CI2	0.864			
CI3	0.918			
CI4	0.856			
CI5	0.897			
CI6	0.791			
CI7	0.771			
CF1	0.903			
CF2	0.881			
CF3	0.886			
CF4	0.699			
CF5	0.691			
CF6	0.751			
CM1	0.583			
CM2	0.644			
CM3	0.874			
CM4	0.881			
CM6	.830			

Organizational Commitment					
CA1	0.943				
CA2	0.948				
CA3	0.921				
CC1	0.836				
CC2	0.923	0.78	0.54	0.243	
CC3	0.849				
CN1	0.899				
CN2	0.913				
CN3	0.962				
Organizational Performance					
PE1	0.919				
PE2	0.910				
PE3	0.922				
PE4	0.908				
PE5	0.871				
PS2	0.897				
PS3	0.892	0.77	0.54	0.27	
PS4	0.926				
PS5	0.867				
PIN1	0.822				
PIN2	0.922				
PIN3	0.888				
PIN4	0.872				

Discriminant validity (DV) describes the degree to which distinct variables differ from one another. Two approaches are used to assess DV as used by previous studies (Zumrah et al. 2021). The first is the Fornell Larcker Criterion (FLC) which indicates the values of AVE. The square root coefficients should have greater values in the correlation matrix than the squared correlation estimates of the construct (Fornell & Larcker, 1981). The Heterotrait-Monotrait Ratio (HTMT) is the second approach in which the HTMT values of the constructs must be < 0.85 as suggested by Henseler et al. (2015). Panel A of Table 3 showed the FLC values of the constructs while Panel B showed the HTMT; these values suggest adequate Discriminant validity of all the constructs.

Table (3) Fornell-Larcker Criterion and Heterotrait-Monotrait ratio (HTMT)

Variable	Panel A: Fornell-Larcker criterion			Panel B: Heterotrait-Monotrait ratio (HTMT)		
	Culture	Commitment	Performance	Culture	Commitment	Performance

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Culture	0.78					
commitment	0.493** *	0.735		0.423		
Performance	0.519** *	0.484***	0.733	0.398	0.381	

Structural Model

The current study's structural equation model investigates the direct effect of OC on organizational performance and commitment, as well as its indirect effect on performance through the mediating role of organizational commitment. The fit indices of the structural model demonstrate a good match as seen in Figure 1, where the χ^2 statistic was 1956.783, $df= 976$ (CMINDF =2.00, $p0.000$), CFI=0.943, TLI =0.940, and RMSEA =0.050). Based on these indices, the fitness of the structural model is considered adequate (Hair et al, 2019).

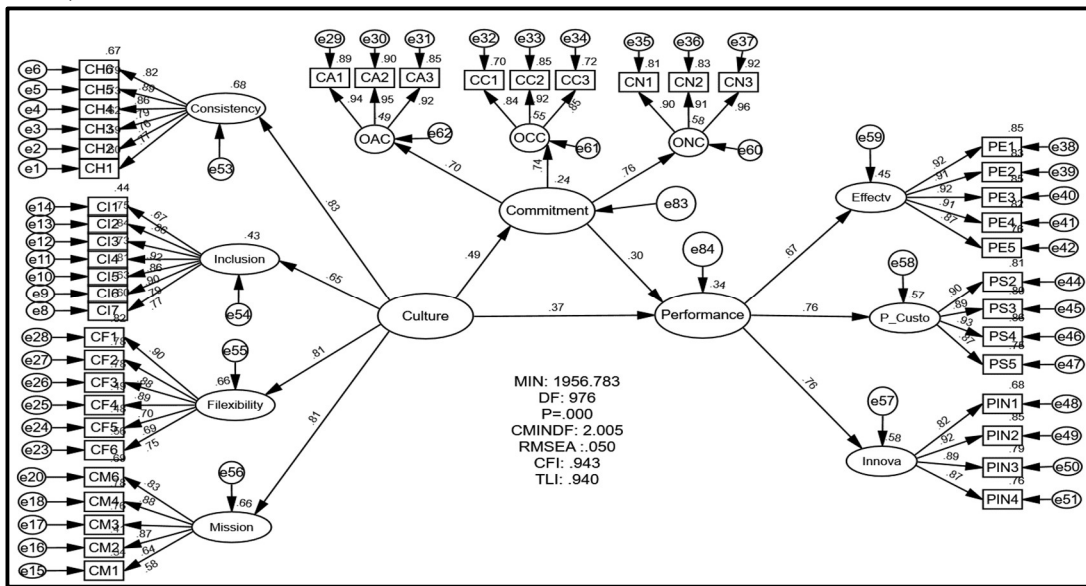


Figure 1. Structural equation model

Hypothesis Testing and Results

The results of the structural model, including the values of the standardized estimate, Beta value, t-statistics, and p-value, are provided in Table 4; the results suggest the relevance of the impact of OC on organizational performance and commitment. As suggested by Byrne (2016), the cut-off point of the metrics must be >1.96 while the p-value must be < 0.05 . The standardised path coefficients of the effect of culture on performance were ($\beta =.37$, $t = 4.83$, $p = .000$), which shows a positive and significant effect of organizational culture on performance. The result showed a positive and significant effect of organizational culture on commitment as $\beta =0.49$, $t = 6.62$, $p =0.000$. In addition, organizational commitment showed a has positive and significant effect on organizational performance as $\beta =0.30$, $t = 4.02$, $p = 0.000$). Table 4 depicts the standardised regression estimation results of the structural model.

Table (4) Standardized Regression Estimation

Path	Estimate		Standard Error	t-value (C.R)	P Value	Result
	USD	SD				
Culture → Performance	0.58	0.37	0.120	4.83	0.000	Supported
Culture → Commitment	0.64	0.49	0.097	6.62	0.000	Supported
Commitment → Performance	0.36	0.30	0.089	4.02	0.000	Supported

*Note: USD= Unstandardized. SD= Standardised

The bootstrapping method was used to evaluate the mediating role of organizational commitment on the culture-performance relationship. The bias-corrected bootstrap approach was adopted for this analysis using 2,000 bootstrap samples and a 95% confidence interval. As indicated in Table 5, the mediating role of organizational commitment on the OC- organizational performance relationship was validated based on the P-value of P0.05, as determined by the bootstrapping approach.

Table 5. Bootstrap Results: Standardized Indirect Effect

Structural Path	Estimate		SE	95% Confidence interval		P.Valu e	Decision based on test significance
	USD	SD		Lower	Upper		
Culture→OC→OP	.23	.15	.074	.097	.384	.001	supported

Note: OC = Organizational Commitment; OP = Organizational Performance; USD = Unstandardized; SD = Standardized.

However, the positive effect of OC on performance based on the employee's job type (H5) was stronger for managerial employees, but the difference in this relationship based on employee's job type (managerial or technical) was insignificant as the p-value was >0.05. The positive effect of organizational culture on organizational commitment based on the employee's job type (H6) was stronger for technical employees. The difference in this relationship was significant because the p-value of the difference was < 0.000. The positive effect of organizational commitment on organizational performance based on the employee's job type (H7) was stronger for technical employees, but the difference in this relationship was found insignificant as the p-value was >0.05. The results of the different effects of OC, commitment, and performance based on the employee's job type are shown in Table 6.

Table 6. The different effects of culture on commitment and performance according to subgroups (Managerial and Technical employees)

Path Name	Managerial Beta	Technical Beta	Difference in Betas	P-Value for difference	Interpretation
Culture → Per	0.411** *	0.171*	0.240	0.086	The positive effect of culture on performance is stronger for managerial employees.
Culture → Com	0.357** *	0.362**	-0.005	0.000	The positive effect of culture on commitment is stronger for technical employees.
Com → Per	0.262** *	0.344**	-0.082	0.099	The positive effect of commitment on performance is stronger for technical employees.

*** $p < 0.001$, Per = performance, Co= commitment

Discussion

This study described the nature of the relationship between regulatory culture, organizational commitment, and organizational performance. It theoretically pointed out the relationship between the variables. In addition, it portrays how organizational management develops their own culture that reinforces their employees' organizational commitment and increases overall performance. Therefore, this study empirically investigates the possible impact of OC on performance and commitment, as well as the impact of organizational commitment on performance, and the possible mediating effect of organizational commitment on the OC-performance relationship in the electricity sector in developing countries. Furthermore, the study investigates the possible differences in the effect of OC and commitment on performance based on the employee's job type (managerial and technical).

The finding of this study identified that organizational performance is positively and significantly affected by organizational culture in the electricity sector in developing countries. The positive effect of organizational culture on performance is stronger for managerial employees. This result confirmed the scholars' argument that organizations with strong cultures positively impact performance (Demir, 2011; Aboajela, 2015; Giri et al., 2016; Polychroniou & Trivellas, 2018). The long-term success of the organization is also strongly influenced by its culture. Future decades may see a shift in the importance of an organization's culture in determining the success or failure of businesses.

The result of this study is consistent with previous studies, such as Polychroniou and Trivellas (2018) where organizational culture was found to have a strong influence on internal performance (human relations and innovation competence), and a strong positive influence on organizational outcomes (growth, profitability, and reputable assets). Goromonzi (2016) concluded that intangible resources such as organizational culture have positive effects on the performance of banks in Zimbabwe. In addition, this result is in line with the finding reported by Nikpour (2017) who found that adopting an appropriate culture by an organization can

significantly and positively affect performance in the education sector in Iran. Joseph & Kibera (2019) revealed that, besides the positive effect of organizational culture on organizational performance, it is considered a significant source that provides an organization sustainable competitive advantage.

Another finding of this study revealed that organizational culture has positive and significant effects on organizational commitment with its three components (affective, continuance, and normative) in the electricity sector in developing countries. The positive effect of culture on commitment is stronger for technical employees. This finding is in line with the theoretical elaboration provided by Peters and Waterman (2006) on the relationship between organizational culture and organizational commitment; they argued that organizational culture has an impact on a wide range of organizational and human outcomes, such as individual commitment. However, this result is consistent with previous studies such as Nikpour (2017) who revealed that organizational commitment is affected by organizational culture. Another research found that organizational culture that includes trust, effective communication, and innovative culture, has a beneficial impact on organizational commitment (Muliaty, Basri & Jasruddin, 2017).

However, another finding of this study revealed that organizational commitment has a significant and positive effect on organizational performance in the electricity sector in developing countries. The positive effect of commitment on performance is stronger for technical employees. This finding is consistent with Arthur (1994) who asserted that a higher level of employee commitment would result in a high level of performance. This finding is also in line with Al-Refaei et al (2019) who stated that organizations can have successful businesses based on the perception, attitudes, and behaviour of their employees towards the institutional overall climate and practices. This finding agreed with previous studies by Nikpour (2017), Giri et al. (2016), Kawiana et al. (2018), Oyewobi et al. (2019), and Jufrizen (2021) where employee's commitment to their organization was reported to be significantly and positively affect performance. Employees with strong trust, beliefs, and acceptance of organization values, will be willing to exert more effort to benefit their respected organization, thereby improving organizational performance.

This study also found a significant mediation role of organizational commitment on the OC-performance relationship in the electricity sector in developing countries; this means that organizational culture positively influences organizational performance through its effect on employee commitment. The possible reason is that organizational culture plays an essential function in directing individuals' behaviour, such as commitment and collective efforts towards achieving better organizational performance (Joseph & Kibera, 2019). This finding agreed with previous studies that reported a positive mediating role of organizational commitment on the culture-performance relationship (Mulyani et al., 2019). The study by Nikpour (2017) noted that in addition to the direct impact of OC on performance, there is an indirect effect through organizational commitment.

Conclusion

Organizational culture has positive effects on the effectiveness of companies. In addition to its strong impact on the commitment of employees to the organization and their acceptance of its values and goals, it has an important impact on organizational performance because employees who adopt and accept the values and goals of the organization seek and make efforts and outstanding performance to achieve organizational goals, and thus improve organization performance. Organizational culture demonstrates the ability of companies to develop a set of values that must be followed and develop employees' skills and abilities that support the

achievement of the organization's goals in the short term and its ability to survive and succeed in the long term. The results suggest that organizations with a solid organizational culture have the stability and commitment of their employees and achieve outstanding performance, enhancing their ability to control and limit the effects of the external environment compared to companies that have a weak organizational culture. Companies with a robust organizational culture can develop and invent new ideas, take advantage of technological progress, exploit available resources, and develop innovative skills and systems that help the organization achieve a competitive advantage.

Limitation

When analysing the study's findings, it is essential to consider that it has certain limitations. One weakness of the current study is that it only includes one company from one city with limited sample size. It is not easy to generalise the findings; so, future research should include large sample sizes, including those from different cities. Various cultural and performance models include other variables, such as transformational leadership and job satisfaction that may be examined in the future study.

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